WEST

| Help | Logout | Interrupt |

| Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences | Cases |

Search Results -

Terms	Documents
131 and 134	5

Database:

```
US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins
```

Search:

[Refine Search]

[Recall Text]   [Clear]

Search History

DATE: Thursday, June 06, 2002   Printable Copy   Create Case

Set Name	Query	Hit Count	Set Name
side by side			result set

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

Set Name	Query	Hit Count	Set Name
L35	l31 and l34	5	L35
L34	(((704/$)!.CCLS.))	12567	L34
L33	((704/9)!.CCLS.)	543	L33
L32	L31 and syntactic same data	15	L32
L31	L23 and semantic same data	85	L31
L30	L23 and semantic same inform$	47	L30
L29	L28 and query	34	L29
L28	L27 and pointer	58	L28
L27	L26 and text same objects	64	L27
L26	L25 and relationships	267	L26
L25	L24 and attribute$	347	L25
L24	L23 and (index or indices)	867	L24
L23	free same format same data or unformat$ same data	2891	L23
L22	L21 and (syntactic same information or syntactic same data)	3	L22
L21	L20 and query	15	L21
L20	L19 and pointer	17	L20
L19	L18 and text same object	17	L19
L18	L17 and relationships	40	L18
L17	L15 and attribute$	65	L17
L16	L15 and generate$ same index	30	L16
L15	free near format near data or unformat$ near data	226	L15
L14	L13 and (free near format same data or unformat$ same data)	7	L14
L13	L12 and arbitrar$ same struct$ same data	11	L13
L12	L11 and (form$ or generate$ or make$ same index)	167	L12
L11	L10 and semi and structured same data	168	L11
L10	L9 and (index or indices)	7298	L10
L9	(directory service and semantic)	33621	L9
L8	(((707/$)!.CCLS.))	14436	L8
L7	(((707/541)!.CCLS.))	81	L7
L6	(((707/531)!.CCLS.))	695	L6
L5	(((707/102)!.CCLS.))	1195	L5
L4	(((707/4)!.CCLS.))	1018	L4
L3	(((707/1)!.CCLS.))	1527	L3
L2	(((707/101)!.CCLS.))	859	L2
L1	((707/9)!.CCLS.)	538	L1

END OF SEARCH HISTORY

WEST

☐ ⬛ Generate Collection ⬛ ⬛ Print ⬛

L32: Entry 10 of 15   File: USPT   Oct 23, 1990

US-PAT-NO: 4965763
DOCUMENT-IDENTIFIER: US 4965763 A

TITLE: Computer method for automatic extraction of commonly specified information from business correspondence

DATE-ISSUED: October 23, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zamora; Elena M.	Chevy Chase	MD		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
International Business Machines Corporation	Armonk	NY			02

APPL-NO: 7/ 308955   [PALM]
DATE FILED: February 6, 1989

PARENT-CASE:
This is a continuation of U.S. patent application Ser. No. 021,078, filed Mar. 3, 1987, now abandoned.

INT-CL: [5] G06F 15/40

US-CL-ISSUED: 364/900; 364/918, 364/963, 364/963.1, 364/419
US-CL-CURRENT: 704/1

FIELD-OF-SEARCH: 364/2MSFile, 364/9MSFile, 364/419

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

⬛ Search Selected ⬛   ⬛ Search ALL ⬛

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4358824	November 1982	Glickman et al.	
☐	4384329	May 1983	Rosenbaum et al.	364/300
☐	4417321	November 1983	Chang et al.	
☐	4506326	March 1985	Shaw et al.	364/900
☐	4773009	September 1988	Kucera et al.	364/200

OTHER PUBLICATIONS

G. E. Heidorn, et al., "The Epistle Text-Critiquing System," IBM Systems Journal, vol. 21, No. 3, pp. 305-236 (1982).
H. Tennant, et al., "Menu-Based Natural Language Understanding," Proc. 21st Ann. Mtg. Assoc. for Computational Linguistics, pp. 151-158, Jun. 1983.
M. S. Palmer, et al., "Recovering Implicit Information," Proc. of 24th Annual Meeting of the Assoc. for Computational Linguistics, pp. 10-19, Jun. 1986.
E. M. Zamora, et al., "Extraction of Chemical Reaction Information from Primary Journal Text Using Computational Linguistics Techniques, . . . " J. Chem. Inf. Comput. Sci., 24, pp. 176-181, 1984.

E. M. Zamora, et al., "Extraction of Chemical Reaction Information" from Primary Journal Text Using Computation Linguistics Techniques, J. Chem. Inf. Comput. Sci., 24, pp. 181-188, (1984).

ART-UNIT: 237
PRIMARY-EXAMINER: Chan; Eddie P.
ATTY-AGENT-FIRM: Hoel; John E.

ABSTRACT:

A Parametric Information Extraction (PIE) system has been developed to identify automatically commonly specified information such as author, date, recipient, address, subject statement, etc. from documents in free format. The program-generated data can be used directly or can be supplemented manually to provide automatic indexing or indexing aid, respectively.

2 Claims, 18 Drawing figures

WEST

End of Result Set

☐ | Generate Collection | | Print |

L35: Entry 5 of 5   File: USPT   Apr 3, 1990

US-PAT-NO: 4914590
DOCUMENT-IDENTIFIER: US 4914590 A

TITLE: Natural language understanding system

DATE-ISSUED: April 3, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Loatman; Robert B.	Vienna	VA		
Post; Stephen D.	McLean	VA		
Yang; Chih-King	Rockville	MD		
Hermansen; John C.	Catharpin	VA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Emhart Industries, Inc.	Indianapolis	IN			02

APPL-NO: 7/ 195237   [PALM]
DATE FILED: May 18, 1988

INT-CL: [4] G06F 15/21, G06F 15/18, G06K 9/62

US-CL-ISSUED: 364/419; 364/200, 364/274.8
US-CL-CURRENT: 704/8

FIELD-OF-SEARCH: 364/200, 364/900, 364/274.8, 364/419, 364/917.92

PRIOR-ART-DISCLOSED:

OTHER PUBLICATIONS

Loatman, R. B. & McCown, M. G., Information Extraction from Natural Language Messages,
Reprint from Proceedings of ESIG--Third Annual Expert Systems in Government Conference,
Oct. 19-23, 1987.
Loatman, R. B., A Hybrid Architecture for Natural Language Understanding, Reprint from
Proceedings of SPIE--International Society of Optical Engineering, May 18-20, 1987.
R. B. Loatman article, Natural Language Text Understanding, at pp. 2-5 of Jul. 1986,
Technology Newsletter (Assignee Internal Publication).
Undated Brochure of Assignee, "Innovative Solution for AMHS", (author unknown).
M. Bates, 1987, "The Theory & Practice of Augmented Transition Network Grammers", in L.
Bolc (ed.) Natural Language Communication with Computers, New York, Springer.
Winograd, T., 1983, Language as a Cognitive Process, vol. 1: Syntax, Reading, Mass:
Addison-Wesley, (Chapter 5, Appendix D), 195-271, 583-599.
Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J., 1985, A Comprehensive Grammer of the
English Language, New York: Seminar Press (excerpts from Chapter 10, Appendix I).
Sager, N., 1981, Natural Language Information Processing: A Computer Grammar of English
and Its Applications, Reading, Mass.: Addison-Wesley (excerpts from Appendix I).
Wilks, V., Haung, X., & Fass, D., 1985, "Syntax, Preference, and Right Attachment",
Proceedings of the Ninth IJCAI.
Loatman, R. B., 1988, "Natural Language Text Understanding", Article to be published in
assignee Newsletter, (cf. reference AT).
Dept. of Navy, NOSC, May 21, 1987, Memo Concerning Conference Later Held (at which various
NLU Systems were eventually demonstrated).
Schank, R., 1985, Conceptual Information Processing, New York: North-Holland, (excerpts
from Chapter 3).
Cook, W., 1979, Case Grammer: Development of the Matrix Model, Washington, D.C.:
Georgetown University Press, (excerpts).

Laffal, J., 1973, A Concept Dictionary of English, Essex, Comm.: Gallery Press, (excerpts).
Marcus, M., 1980, Theory of Syntactic Recognition for Natural Language, Cambridge, Mass.: MIT Press, (excerpts).

ART-UNIT: 236
PRIMARY-EXAMINER: Jablon; Clark A.
ATTY-AGENT-FIRM: Forest; Carl A.

ABSTRACT:

A hybrid natural language understanding (NLU) system which is particularly designed for processing natural language text. Primary functional components of the NLU system include a preprocessor; a word look-up and morphology module which communicates with a lexicon and a learning module; a syntactic parser which interfaces with an augmented transition network (ATN) grammar; a case frame applier, which converts the syntactic structure into canonical, semantic "case frames"; and a discourse analysis component which integrates explicit and implied information in the text into a conceptual structure which represents its meaning. This structure may be passed on to a knowledge based system, data base, to interested analysts or decision makers, etc. Significant feedback points are provided, e.g., the case frame applier may notify the syntactic parser of a semantically incorrect parse, or the syntactic parser may seek a semantic judgment based on a fragmentary parse. This system incorporates a novel semantic analysis approach based largely on case grammar.

65 Claims, 57 Drawing figures

WEST

End of Result Set

☐ | Generate Collection | | Print |

L35: Entry 5 of 5   File: USPT   Apr 3, 1990

DOCUMENT-IDENTIFIER: US 4914590 A
TITLE: Natural language understanding system

Abstract Paragraph Left (1):
A hybrid natural language understanding (NLU) system which is particularly designed for
processing natural language text. Primary functional components of the NLU system include
a preprocessor; a word look-up and morphology module which communicates with a lexicon and
a learning module; a syntactic parser which interfaces with an augmented transition
network (ATN) grammar; a case frame applier, which converts the syntactic structure into
canonical, semantic "case frames"; and a discourse analysis component which integrates
explicit and implied information in the text into a conceptual structure which represents
its meaning. This structure may be passed on to a knowledge based system, data base, to
interested analysts or decision makers, etc. Significant feedback points are provided,
e.g., the case frame applier may notify the syntactic parser of a semantically incorrect
parse, or the syntactic parser may seek a semantic judgment based on a fragmentary parse.
This system incorporates a novel semantic analysis approach based largely on case grammar.

Brief Summary Paragraph Right (4):
However, there is another NLU application that is less publicized but much more important.
Even if the information in a data base is readily accessible, how accurate and timely is
that information For example, in message processing applications, many messages arrive at
an intelligence center in an unformatted, "free text" form (i.e., natural language). No
present NLU system can account for all of English, and in order to accomplish any useful
work with such a system, it is built with a specific, limited task in mind. The linguistic
structures and vocabulary that a system can handle are specifically targeted to an
application domain and expected text input format. A special use of language peculiar to a
domain is often referred to as a "sublanguage", a term encompassing dialects and jargons.
A significant part of an NLU developer's job is to discover the characteristics of a
sublanguage and specify them for the requirements of an NLU development system.

Detailed Description Paragraph Right (123):
PAKTUS includes data bases of information about words (lexical information) and concepts
(semantic information). This section deals primarily with the lexical component. The
conceptual component is mentioned in a few places where it interfaces with the lexical
one. It is fully discussed below at Section 5. Section 4.1 defines the current PAKTUS
lexical categories and their associated features. The overall structure and operation of
the lexicon is explained in section 4.2. Finally, section 4.3 explains how the lexicon is
extended.

Detailed Description Paragraph Right (143):
PAKTUS recognizes a prescribed set of "affixes"" (prefixes and suffixes) and knows how
they ordinarily affect the lexical and semantic content of words to which they are added.
It also has rules specifying how they alter the spelling when combined with a root (e.g.,
when adding -ly to a word ending in "y" first change the "y" to "i" as in happy
.fwdarw.happily). A subset of these (-s, -'s, -er -est, -ly, -ed, -ing, and -th, along
with their spelling variants) have completely predictable effects when added to certain
word classes (e.g., -er always makes an adjective comparative, although it is less certain
what it does to a verb) For this subset, PAKTUS derives the information about the
inflected form when it is first encountered and keeps it in virtual memory. It does not
ask the dictionary officer for confirmation of the derivation since there is no doubt, nor
does it write the derived form permanently in the lexicon data base. This saves space with
little or no cost in processing time.

Current US Original Classification (1):
704/8

WEST

<div style="text-align:center">

[Generate Collection]   [Print]

Search Results - Record(s) 1 through 3 of 3 returned.

</div>

☐   1.   Document ID: US 20020010714 A1

L22: Entry 1 of 3   File: PGPB   Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010714
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020010714 A1

TITLE: Method and apparatus for processing free-format data

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hetherington, Greg	Kareela		AU	

US-CL-CURRENT: 707/505; 707/508

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image |

☐   2.   Document ID: US 6272495 B1

L22: Entry 2 of 3   File: USPT   Aug 7, 2001

US-PAT-NO: 6272495
DOCUMENT-IDENTIFIER: US 6272495 B1

TITLE: Method and apparatus for processing free-format data

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hetherington; Greg	Kareela New South Wales 2232			AUX

US-CL-CURRENT: 707/101; 707/102, 707/4, 707/531

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image |

☐   3.   Document ID: US 2002010714 A1 WO 9848360 A1 AU 9870147 A EP 1078323 A1 US 6272495 B1 CN 1315020 A

L22: Entry 3 of 3   File: DWPI   Jan 24, 2002

DERWENT-ACC-NO: 1998-583882
DERWENT-WEEK: 200210
COPYRIGHT 2002 DERWENT INFORMATION LTD
TITLE: Free format data processing method e.g. for computer - processing free format data to produce text object associated with free format data with text object has several component nodes containing attribute type identifiers for elements of free format text and other data

INVENTOR: HETHERINGTON, G

```
PRIORITY-DATA: 1997AU-0000      (April 22, 1997)

PATENT-FAMILY:
PUB-NO                      PUB-DATE              LANGUAGE    PAGES   MAIN-IPC
US 2002010714 A1            January 24, 2002                  000    G06F007/00
WO 9848360 A1              October 29, 1998       E          095    G06F017/30
AU 9870147 A               November 13, 1998                 000    G06F017/30
EP 1078323 A1             February 28, 2001       E          000    G06F017/30
US 6272495 B1             August 7, 2001                     000    G06F017/30
CN 1315020 A              September 26, 2001                 000    G06F017/30
```

INT-CL (IPC): <u>G06</u> <u>F</u> 7/<u>00</u>; <u>G06</u> <u>F</u> 17/<u>20</u>; <u>G06</u> <u>F</u> 17/<u>30</u>

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Clip Img | Image |

| Generate Collection | Print |

Terms	Documents
L21 and (syntactic same information or syntactic same data)	3

Display Format: [-] [Change Format]

Previous Page   Next Page